

*Jpn. J. Ent.*, **62** (4): 787–792. December 25, 1994

*Tenthredo ornatularia* n. sp. (Hymenoptera,  
Tenthredinidae) from Japan<sup>1)</sup>

Akihiko SHINOHARA

Department of Zoology, National Science Museum (Nat. Hist.),  
Hyakunin-chô 3–23–1, Shinjuku-ku, Tokyo, 169 Japan

**Abstract** *Tenthredo ornatularia* n. sp. is described and illustrated on the basis of material from Honshu and Hokkaido, Japan. Previous records of *T. ornatula* ENSLIN from Japan refer to this new species and *T. ornatula* should be excluded from the Japanese fauna.

**Key words:** Hymenoptera; Tenthredinidae; *Tenthredo ornatularia*; new species; Japan; *Tenthredo ornatula*.

*Tenthredo* LINNAEUS is by far the largest of the sawfly genera, represented by more than 70 species in Japan. In the course of my reviewing Japanese species of the genus, I have noticed that the species previously identified with *T. ornatula* ENSLIN, 1920, is in fact a new species, which is described in the following lines. In Japanese literature, this species was referred to only three times under the name of “*T. ornatula*” or “*T. xanthopus*” (TAKEUCHI, 1919, 1952; ABE & TOGASHI, 1989), all in a checklist without discussion, and no collection data have ever been published.

*Tenthredo ornatula* is a replacement name for *T. xanthopus* CAMERON, 1876 (a primary homonym of *T. xanthopus* SPINOLA, 1843), whose type locality is “Japan”. Redescribing the species on the holotype, however, KIRBY (1882) noted “Hab. Japan ? a. ♀. (Type.) Japan ? or North India ?”, which indicated the dubious geographical origin of the type specimen. ENSLIN (1920) gave a redescription of both the sexes of this species (under the name of *ornatula*) based on his own material from “Borneo und Indien”. MALAISE (1945) treated this species as a synonym of *Tenthredo simlaensis* CAMERON, 1899, which was originally described from northern India; he gave “Himalaya (Simla); Sikkim (Gangtok); Burma (Chan Yoma); Burma-Yünnan frontier; 1800–2000 m” as the distributional range of this species, stating that “Enslin (Abh.-bot. Ges. Wien XI, 1920 p. 26) gives this species except from Japan also from Borneo” and that “Both these localities are certainly erroneous.” To my knowledge, none of the Japanese species of *Tenthredo* agree with descriptions of *T. ornatula*, and I assume that *T. ornatula*, whether it is a synonym of *T. simlaensis* or not, is a continental South Asian species not occurring in Japan.

The type material of the new species described in this paper is kept in the National Science Museum, Tokyo, unless otherwise specified.

I wish to thank Dr. M. KUBOKI (Tokyo), Prof. S. MORIUTI (UOP=University o

1) This work is financially supported by the Fujiwara Natural History Foundation.

Osaka Prefecture, Sakai), Prof. T. NAITO (KU=Kobe University, Kobe) and Mr. S. TSUYUKI (Zushi) for the loan or gift of material, and Mr. H. HARA (Hokkaido Forestry Research Institute, Bibai) and Mr. Y. KOBAYASHI (Azumi) for their help during collecting trips. I am also grateful to Dr. S.-I. UENO, National Science Museum, Tokyo, for his reviewing the manuscript.

*Tenthredo ornatularia* n. sp.

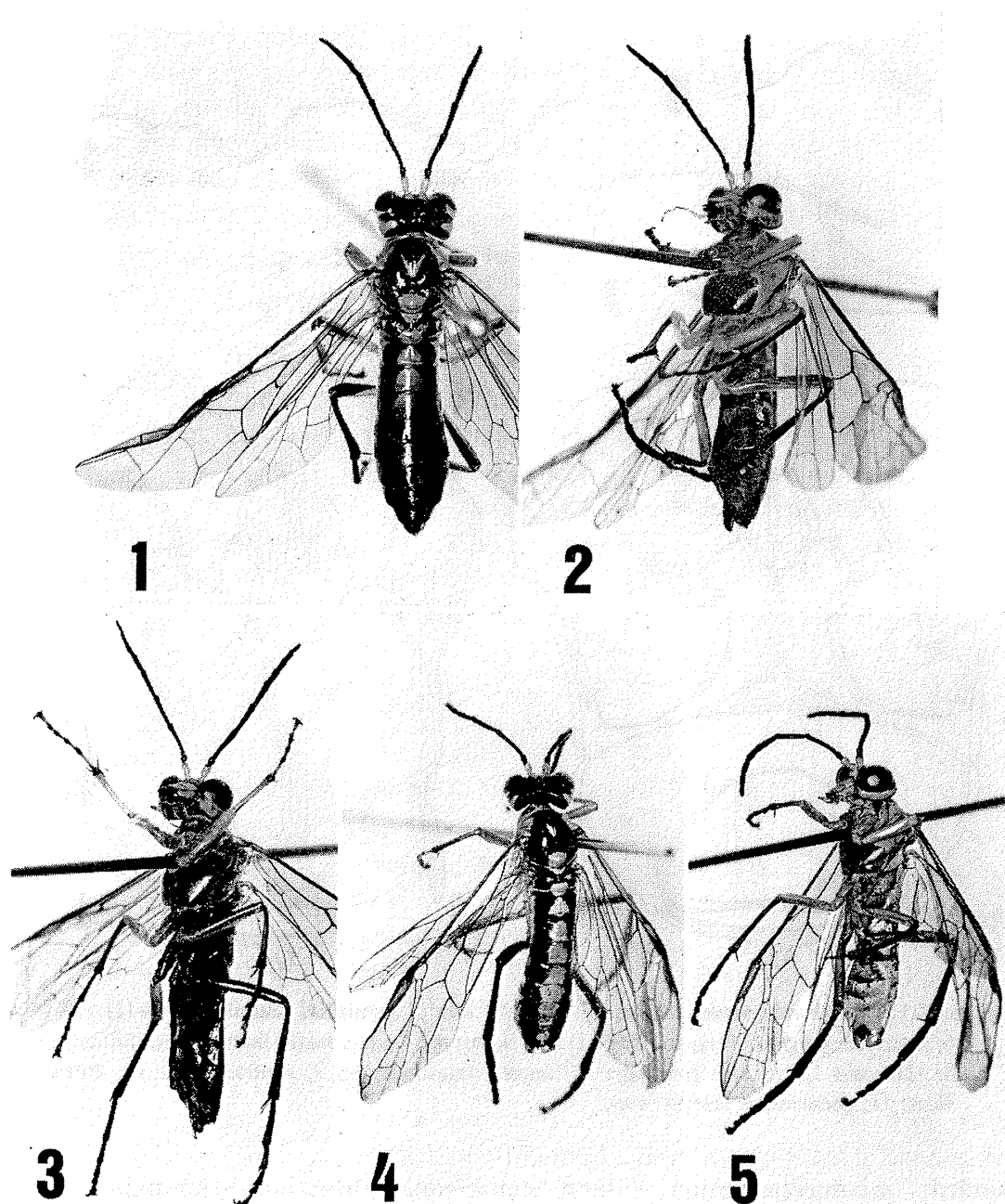
*Tenthredella xanthopus*: TAKEUCHI, 1919, p. 183.

*Tenthredella ornatula*: TAKEUCHI, 1952, p. 26.

*Tenthredo ornatula*: ABE & TOGASHI, 1989, p. 557.

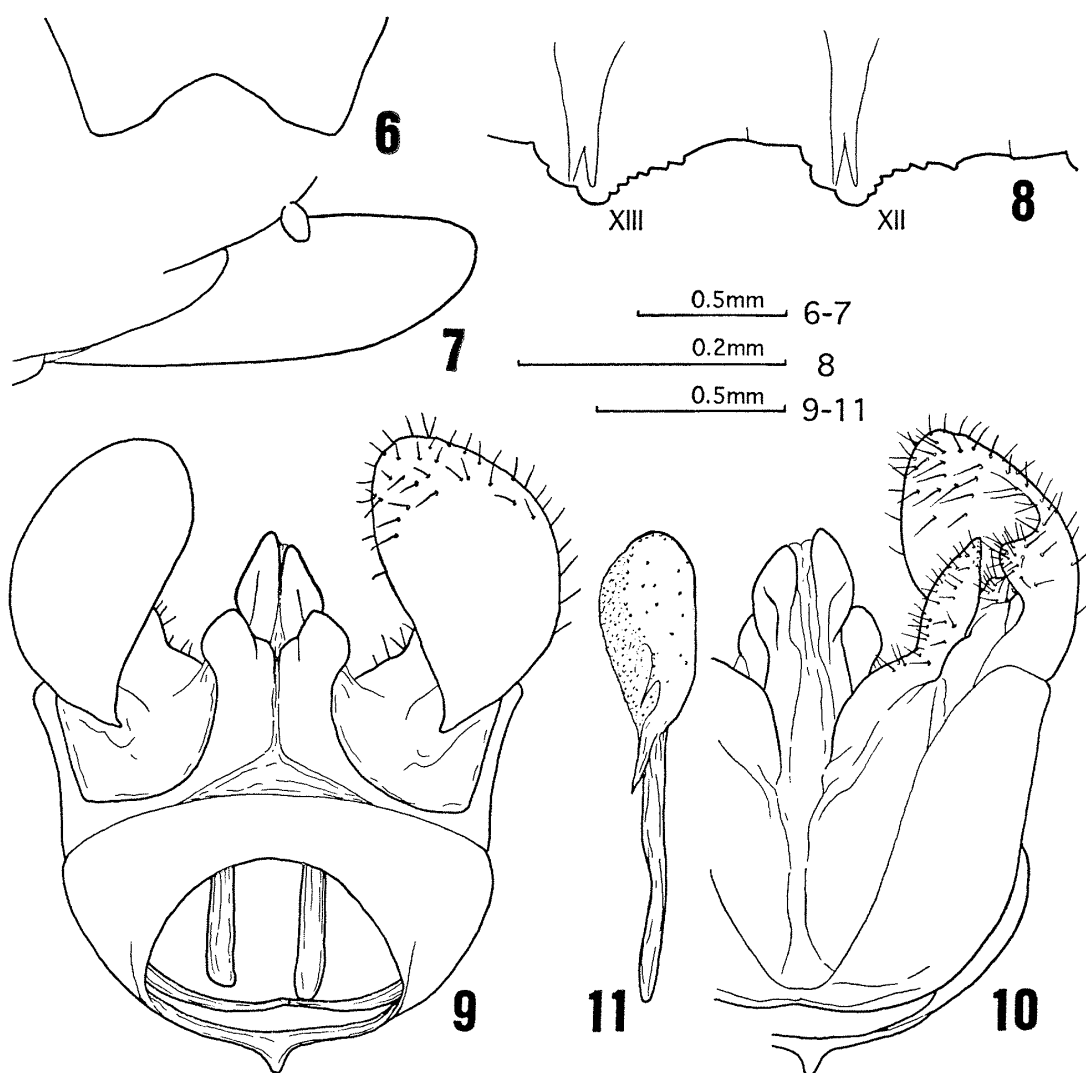
*Female* (holotype, Figs. 1–2). Length 12 mm. Pale greenish with black marking. Head pale greenish, with most of dorsal surface, posterior surface behind postgenal carina, antenna (except for entirely pale greenish scape) and cardo black; apex of mandibles blackish rufous. Pronotum pale greenish, with rather obscure band at dorsomedian part black; cervical sclerite pale greenish with dorsal part black-marked; tegula pale greenish; mesonotum and mesopostnotum black, with pale greenish V-shaped mark along posterior margin of median lobe and two small spots of the same color one each on posterior ridge of lateral lobe near mesoscutellum; mesoscutellum and its appendage pale greenish; mesopleuron pale greenish, with stripe along ventral margin of mesepimeron (posteriorly obsolete) and ventral surface black; metanotum black, with pale greenish stripe along outer surface of ridge and two small spots of the same color one each just behind cenchrus; metascutellum and metapostnotum pale greenish, with lateral part of the latter black; metapleuron pale greenish, with small crescent mark along ventral margin of metepimeron black. Wings hyaline, very slightly infuscated; venation blackish, with vein C (darkened toward apex) and stigma (anteriorly darkened) pale greenish brown. Legs pale greenish, with the following black: apex of each anterior tarsal segment, narrow stripe along posterior surface of anterior tibia, broad stripe in apical half of dorsal surface of mid femur, posterior half of mid tibia, posterior surface and narrow apex of each mid tarsal segment, broad stripe on dorsal surface of hind femur, which is basally narrowed and not reaching trochantellus, and hind tibia (except for fading pale stripe on outer surface) and tarsus. Abdomen pale greenish, with a pair of broad black longitudinal stripes dorsally; median pale greenish area on each tergum narrowed anteriorly; 9th tergum without pale marking dorsally; sawsheath pale greenish, with apical margin blackish; cercus blackish.

Head generally smooth, entirely covered with pale pubescence; area between antennal furrow and inner orbit nearly polished, without distinct punctures. Clypeus (Fig. 6) with anterior margin circularly or subtriangularly incised; supraclypeal tubercle only weakly swollen, continuous with rather low frontal ridge; postocellar area short (about 2.6 times as wide as long), anteromedian part pyramidally, though rather weakly, raised; antenna with 3rd segment about 1.2 times as long as 4th.



Figs. 1-5. *Tenthredo ornatularia* n. sp. — 1-2, ♀, holotype; 3, ♀, paratype, Nukabira; 4-5, ♂, paratype, Nikko.

Mesoscutum densely covered with fine uniform punctures, but interspaces rather smooth, shining; mesoscutellum roundly swollen, covered with minute, rather inconspicuous punctures, posterior part more distinctly microsculptured; posttergite polished, impunctate, not carinate; mesepisternum coriaceous all over, ventral surface covered with very fine punctures, feebly shining; lateral swelling of mesepisternum



Figs. 6-11. *Tenthredo ornatularia* n. sp., ♀ (6-8) and ♂ genitalia, Kamikochi (9-11). — 6, Anterior margin of clypeus, frontal view, holotype; 7, sawsheath, lateral view, holotype; 8, 12th and 13th teeth from apex of lancet, paratopotype; 9, ventral view; 10, dorsal view; 11, penis valve, lateral view.

rounded; mesopreepisternum without conspicuous projection. Abdominal segments with fine dense transverse striation, giving oily luster. Sawsheath as in Fig. 7. Teeth of lancet as in Fig. 8.

*Male* (specimen from Nikko, Figs. 4-5). Length 10 mm. Agrees with the above description of the female, except as follows: black marking on ventral surface of mesopleuron restricted to anterior part; pale spot behind each cenchrus on metanotum missing; metapostnotum more extensively black, with pale area at middle becoming subtriangular; broad black stripe on dorsal surface of hind femur extending to the base and also dorsal surface of trochanter marked with black; hind tarsus not very

black but dark greenish brown, paler towards apex; narrow apical margin of each abdominal tergum (including 9th) and entire subgenital plate pale greenish.

Postocellar area about 2.6 times as wide as long; antenna with 3rd segment about 1.1 times as long as 4th; abdominal segments with weak transverse striation, but with fine punctures; posterior margin of each abdominal tergum very shallowly, broadly concave in dorsal view; subgenital plate broadly truncated at apex; genitalia as in Figs. 9–11.

*Distribution*: Japan (Hokkaido, Honshu).

*Holotype*: ♀, Tokusawa, 1600 m, Kamikochi, Nagano Pref., Honshu, 4–6. VII. 1989, A. SHINOHARA.

*Paratypes*: Hokkaido: 1 ♀, Rausu, Nemuro, 7. VII. 1958, T. NAKANE (KU); 1 ♀, Akan-ko, Kushiro, 30. VI. 1970, A. SHINOHARA; 1 ♂, Mt. Sharidake, Abashiri, 23. VII. 1938, T. NAKANISHI (UOP); 1 ♀, Nukabira, Tokachi, 16–21. VI. 1982, A. SHINOHARA; 2 ♀, 1 ♂, Horoka-onsen, Tokachi, 21. VI. 1990, A. SHINOHARA; 1 ♀, same locality, 25. VI. 1992, A. SHINOHARA; 1 ♀, Yamada-onsen, 800 m, Tokachi, 22. VI. 1991, A. SHINOHARA; 1 ♀, Ashoro, Tokachi, 19. VI. 1967, T. NAITO (KU). Honshu—Tochigi Pref.: 1 ♂, Kotoku—Yumoto, Nikko, 18. VI. 1972, A. SHINOHARA; 1 ♀, Kotoku, Nikko, 5. VI. 1977, A. SHINOHARA. Yamanashi Pref.: 1 ♀, Mt. Kinpu, 1. VII. 1963, T. NAITO (KU); 1 ♀, Kinpusen, 21. VI. 1931, H. MASUDA (UOP); 1 ♀, Kagosaka-toge, Yamanakako, 25. V. 1972, T. & H. SUDA (KU); 1 ♂, Aokigahara, 2. VIII. 1975, S. TSUYUKI; 1 ♀, Yatsugatake, 8. VIII. 1949, S. ITO (UOP). Nagano Pref.: 1 ♂, Togakushi, 20. VI. 1932, K. SATO; 1 ♀, Ogisawa, 1600 m, nr. Omachi, 23. VII. 1981, A. SHINOHARA; 1 ♀, Sugadaira, 6. VII. 1952, J. MINAMIKAWA (KU); 1 ♀, Misayama-toge, nr. Takeyu, 29. V. 1981, A. SHINOHARA; 1 ♀, Shimashima-dani, Azumi-mura, 25. VII. 1974, M. KUBOKI; 2 ♀, Oshirakawarindo, Azumi-mura, 4. VI. 1990, A. SHINOHARA; 1 ♀, 1 ♂, Kamikochi, 10. VII. 1918, K. SATO; 1 ♀, same data except for 10. VII. 1919; 1 ♂, same locality, 15. VII. 1922, ISSHIKI (UOP); 2 ♀, same locality, 20. VI. 1951, T. NAKANE (UOP); 1 ♀, same locality, 14. VIII. 1951, S. ITO (UOP); 1 ♂, Kappabashi—Myojin, 1500 m, Kamikochi, 21–23. VI. 1989, A. SHINOHARA; 2 ♀, same data as for holotype; 2 ♀, Tokugotoge, 15. VII. 1950, T. NAKANE (UOP).

*Variation*. The length varies from 11 to 13 mm in females and from 10 to 12 mm in males. The specimens from Hokkaido have a minute pale spot at the top of the swelling on the postocellar area and in females the black marking on the ventral surface of mesopleuron is reduced (Fig. 3), with only fading patches left in the anterior part. In the specimens from Honshu, the minute pale spot on the postocellar area sometimes appears in females, but the ventral surface of mesopleuron is always largely black in females as in the holotype.

*Host-plant*. Unknown.

*Remarks*. Judging from the descriptions of the holotype of *T. xanthopus* by CAMERON (1876) and KIRBY (1882), the new species resembles *T. ornatula* in the peculiar abdominal color pattern; the abdomen is pale greenish (or yellowish), with

a pair of black longitudinal stripes dorsally. However, females of the two species can be distinguished as follows:

1. Forewing with vein C and stigma pale greenish brown; mesopleuron with fine distinct surface microsculpture, very feebly shining; blackish area on abdomen without metallic bluish tinge; sawsheath pale greenish, with apical margin blackish. .... *ornatularia*
- Forewing with vein C and stigma black; mesopleuron (“pleurae”) smooth, shining; blackish area on abdomen with metallic bluish tinge (“steel-blue”); sawsheath (“terebrae”) black (after CAMERON, 1876, and KIRBY, 1882). ....  
..... *ornatula*

*Tenthredo nigrolateralis* MALAISE, 1931, from Vladivostok also has a similar color pattern on the abdomen, but is different at least in having extensive pale areas on the dorsum of head (MALAISE, 1931, fig. 5).

In MALAISE's key (1945) to Southeast Asian species, *T. ornatularia* would run to *T. pediculus* JAKOVLEV, 1891, from Gansu and Sichuan, China. Females of the two species can be distinguished as follows:

1. Length 11–13 mm; no pale stripe along inner margin of compound eye; flagellum entirely black; clypeus (Fig. 6) with anterior margin circularly or subtriangularly incised, lateral tooth not extremely sharp; mesopleuron with fine distinct surface microsculpture, very feebly shining. .... *ornatularia*
- Length 8–8.5 mm; pale stripe present along inner margin of compound eye; flagellum pale beneath from apex of 4th segment; clypeus with anterior margin “broadly and subrectangularly incised” and lateral tooth “extremely sharp and as if somewhat compressed”; mesopleuron smooth, strongly shining (after MALAISE, 1945). .... *pediculus*

## References

- ABE, M. & I. TOGASHI, 1989. Tenthredinidae. In HIRASHIMA, Y. (ed. supervisor), *A Check List of Japanese Insects*, pp. 545–560. (In Japanese.)
- CAMERON, P., 1876. Descriptions of new genera and species of Tenthredinidae and Siricidae, chiefly from the East Indies, in the collection of the British Museum. *Trans. ent. Soc. Lond.*, **1876**: 459–471.
- ENSLIN, E., 1920. Die Blattwespengattung *Tenthredo* (*Tenthredella* ROHWER). *Abhandl. zool.-bot. Ges. Wien*, **11**: 1–95.
- KIRBY, W., 1882. List of Hymenoptera with Descriptions and Figures of the Typical Specimens in the British Museum, 1. 450 pp + 15 pls. Taylor & Francis, London.
- MALAISE, R., 1931. Blattwespen aus Wladiwostok und anderen Teilen Ostasiens. *Ent. Tidsk.*, **51**: 97–159.
- 1945. Tenthredinoidea of South East Asia. *Opuscula ent.*, Suppl. **4**: 1–288.
- TAKEUCHI, K., 1919. [A list of the known sawflies from Japan.] *Insect World, Gifu*, **23**: 182–188. (In Japanese.)
- 1952. A Generic Classification of the Japanese Tenthredinidae. 90 pp. Kyoto.

(Received June 28, 1994; Accepted August 3, 1994)